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APR 20 2007

Application No.: 10/810,436

Docket No.: JCLA12013-R

REMARKSPresent Status of the Application

Claims 1, 3-5 and 7 were rejected under 35 U.S.C. 102(b) as being anticipated by Martin (US 6,323,550 B1; hereinafter Martin). Claim 6 was rejected under 35 U.S.C. 103(a) as being unpatentable over Martin in view of Meckes (US 7,061,098; hereinafter Meckes). Claims 8 was rejected under 35 U.S.C. 103(a) as being unpatentable over Martin in view of Meckes, and further in view of Nishiguchi (JP404024928A).

Claims 1 and 6 have been amended for clarification purposes. Supporting grounds can be found at least in figure 1A-1C. No new matter has been added to the application by the amendments made to the specification, claims and drawings. After carefully considering the remarks set forth in this Office Action and the cited references, Applicants respectfully submitted that the presently pending claims are in condition for allowance. Reconsideration and withdrawal of the Examiner's rejection are requested.

Discussion of the claim rejection under 35 USC 102

Applicants respectfully traverse the 102(b) rejection of claims 1, 3-5 and 7 because Martin does not teach every element recited in these claims.

Martin disclosed that the ballbonds 16 are coupled to leadframe 20 through wirebonds 18 [column 4, lines 14-16, Fig. 4]. However, in the present application, the bond pads 114 are connected to PCB 140 via the contacts such as conductive bumps [para. 29, lines 3-6, Fig. 1C].

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Applicants would like to particularly point out that Martin fails to teach, suggest or disclose every elements of the claimed invention as recited in the amended claim 1. More specifically, Martin fails to teach, suggest or discloses that a plurality of contacts are electrically connected to said plurality of bond pads respectively, wherein the contacts are conductive bumps, and the contacts are connected to the PCB as recited in the amended claim 1.

Applicants respectfully submit that, as disclosed above, independent claim 1 patently defines over the prior art reference, and should be allowed. For at least the same reasons, dependent claims 3-5 and 7 patently define over the prior art as a matter of law, for at least the reason that these dependent claims contain all features of their respective independent claim. Reconsideration and withdrawal of these 102 rejections are respectfully requested.

Discussion of the claim rejection under 35 USC 103

Claim 6 was rejected under 35 U.S.C. 103(a) as being unpatentable over Martin in view of Meckes (US 7,061,098; hereinafter Meckes). Claims 8 was rejected under 35 U.S.C. 103(a) as being unpatentable over Martin in view of Meckes, and further in view of Nishiguchi (JP404024928A). Applicants respectfully traverse the rejection of claims under 103(a) as being unpatentable over Martin in view of Meckes or further in view of Nishiguchi because a prima facie case of obviousness has not been established by the Office Action.

To establish a prima facie case of obviousness under 35 U.S.C. 103(a), each of three requirements must be met. First, the reference or references, taken alone or combined, must teach or suggest

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each and every element in the claims. Second, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skilled in the art, to combine the references in a manner resulting in the claimed invention. Third, a reasonable expectation of success must exist. Moreover, each of the three requirements must "be found in the prior art, and not be based on applicant's disclosure." See M.P.E.P. 2143, 8th ed., February 2003.

For claim 6, Examiner has stated that the ordinary artisan would have been motivated to modify Martin for at least the purpose of utilizing flip chip interconnections to connect the chip package to a substrate (e.g. a printed circuit board) and the chip surface to accommodate typical processing like cleaning after soldering.

Applicants respectfully submit that Martin disclosed that the ballbonds 16 are coupled to leadframe 20 through wirebonds 18, and Martin did not disclose any other type of electrical connection to replace with the wirebonds 18. More, even if the external contacts 14 in Meckes are applied in Martin, the ballbonds 16 can not be electrically connected to the leadframe 20 through external contacts 14 in Meckes. In other words, the chip package disclosed by Martin and modified according to Meckes can not be operated or used. Therefore, one skilled in the art could not be motivated to modify Martin with Meckes.

Moreover, even if one skilled in the art could be motivated to modify Martin with Meckes and the issue of the electrically connection between the ballbonds 16 and leadframe 20 in Martin

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has been overcome, the chip package disclosed by Martin and modified according to Meckes is electrically connected to a printed circuit board through leadframe 20. However, the contacts are conductive bumps, and the contacts are connected to the PCB as recited in the claim 1. Therefore, the differences between amended claim 6 of the present invention and the cited references would not have been obvious at the time the invention was made to a person having ordinary skill in the art.

For claim 8, as Martin, Meckes or Nishiguchi fails to disclose all the features recited in independent claim 1, the combination of Martin with Meckes or Nishiguchi still fails to disclose the features recited in claim 8.

Reconsideration and withdrawal of these 103 rejections are respectfully requested.

Discussion of Election/Restrictions

If the amended proposed independent claims 1 is allowed, upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all of the limitations of an allowed generic claim as provided by 37 CFR 1.141.

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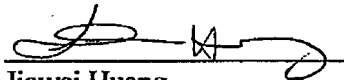
CONCLUSION

In view of the foregoing, it is believed that all pending claims are in proper condition for allowance. If the Examiner believes that a conference would be of value in expediting the prosecution of this application, he is cordially invited to telephone the undersigned counsel to arrange for such a conference.

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Respectfully submitted,
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